

March 4, 2013

Attn: Mary Nichols, Chairman
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: Utilization of Cap-and-Trade Auction Revenues to Support the Diversion of
Woody Biomass Waste Residues for Energy as an Alternative to Open Pile
Burning

Dear Chairman Nichols:

Woody biomass waste residues are generated throughout Placer County. These are the byproduct of forest management, fuel hazard reduction, timber harvest, defensible space clearing, tree trimming, and agricultural operations. Open burning in piles, in the vicinity of the harvest location, is used to dispose of significant quantities of the woody biomass waste residues. The cost to process and transport is higher than the market value for use as fuel or wood products. This is due to the distance to the end-user (mill or energy facility), insufficient infrastructure, and lack of recognition of the environmental benefits from its end-use as fuel or wood products. Numerous research and demonstration projects have determined that the use of woody residues for energy as an alternative to open pile burning results in very significant reductions in air emissions, including criteria pollutants, toxics, and greenhouse gases ^{1,2,3}.

The Placer County Air Pollution Control District (District) requests that cap-and-trade auction revenues be invested into projects located in the Sierra Nevada's that support utilization of woody biomass waste residues for renewable energy generation that would have otherwise been open pile burned. Auction revenue funds will be used to make up the difference between the cost to deliver (process and transport) the biomass wastes and the biomass value (market price) at the energy facility.

The District recommends an investment of \$1.2 million of cap-and-trade auction revenues toward biomass utilization projects. Based on similar previous project results, this will allow for the utilization of 60,000 bone dry tons of woody biomass wastes that would have otherwise been open pile burned. This will result in a production of 60,000 MWh of renewable electricity. It will also result in a reduction of 360 tons of fine particulate matter, 3,600 tons of carbon

¹ B. Springsteen, T. Christofk, S. Eubanks, T. Mason, C. Clavin, and B. Storey, "Emission Reductions from Woody Biomass Waste for Energy as an Alternative to Open Burning," *Journal of the Air and Waste Management Association*, Vol. 61, pp. 63-68, January 2011.

² G. Jones, D. Loeffler, D. Calkin, and W. Chung, "Forest treatment residues for thermal energy compared with disposal by onsite burning: Emissions and energy return," *Biomass and Bioenergy*, doi:10.1016/j.biombioe.2010.01.016, 2010.

³ R. Pan, U. Han, L.R. Johnson, and W. Elliot, "Net energy output from harvesting small-diameter trees using a mechanized system," *Forest Products Journal*, Vol. 58, No. 1/2, 25-30, 2008.

monoxide, 280 tons of volatile organic compounds, 92 tons of nitrogen oxides, and 24,000 tons of greenhouse gases (as carbon dioxide equivalents).

The District proposes auction revenue funds be held in an account that is overseen and managed by the District Board of Directors and Air Pollution Control Officer. The District has vast experience managing similar project and fund levels, as demonstrated by our highly effectively annual Clean Air Grant program. Projects will be selected which are cost effective, located near impacted rural disadvantaged communities, and from woody biomass harvests that are consistent with all federal (NEPA) and state (CEQA) forest practice regulations.

Project emission reduction benefits will be determined using a greenhouse gas offset accounting protocol developed by the District, which has been peer reviewed and endorsed by stakeholders including the U.S. Forest Service, California Board of Forestry, Cal Fire, and the California Air Pollution Control Officers Association.

Thank you for consideration of this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas J. Christofk", written over a horizontal line.

Thomas J. Christofk

Air Pollution Control Officer, Placer County Air Pollution Control District